

Title (en)  
Process for avoiding adherence of steelbelt during annealing

Title (de)  
Verfahren zum Vermeiden von Klebern beim Glühen von Stahlband

Title (fr)  
Procédé pour éviter le collage de bande d'acier pendant le recuit

Publication  
**EP 0560172 B1 19970820 (DE)**

Application  
**EP 93103260 A 19930302**

Priority  
DE 4207394 A 19920309

Abstract (en)  
[origin: US5344509A] A process to prevent the formation of adhesives when annealing a steel band having a low carbon content uses an inert gas consisting of nitrogen and hydrogen and includes the phases of heating up, holding time and cooling. The process is characterized in that during the holding time, the steel band is coated by oxidation with a thin coating which is then completely removed by reduction during the cooling phase.

IPC 1-7  
**C21D 9/52; C21D 1/70**

IPC 8 full level  
**C21D 1/26** (2006.01); **C21D 1/68** (2006.01); **C21D 1/70** (2006.01); **C21D 1/76** (2006.01); **C21D 9/52** (2006.01); **C21D 9/67** (2006.01); **C21D 9/56** (2006.01)

CPC (source: EP US)  
**C21D 1/70** (2013.01 - EP US); **C21D 1/76** (2013.01 - EP US); **C21D 9/67** (2013.01 - EP US); **C21D 9/561** (2013.01 - EP US); **Y02P 10/122** (2015.11 - EP US)

Cited by  
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**US 5344509 A 19940906**; AT E157124 T1 19970915; CA 2090344 A1 19930910; CA 2090344 C 20030114; CZ 288475 B6 20010613; CZ 31093 A3 19931117; DE 4207394 C1 19930211; DE 59307136 D1 19970925; EP 0560172 A1 19930915; EP 0560172 B1 19970820; ES 2108773 T3 19980101; FI 100256 B 19971031; FI 930924 A0 19930302; FI 930924 A 19930910; HR P930196 A2 19950831; HU 212176 B 19960328; HU 9300415 D0 19930528; HU T64107 A 19931129; JP H0610038 A 19940118; NO 301341 B1 19971013; NO 930318 D0 19930129; NO 930318 L 19930910; SI 9300111 A 19930930; SI 9300111 B 20001231; SK 17493 A3 19931006; SK 281218 B6 20010118; ZA 931587 B 19930927

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**US 2056093 A 19930223**; AT 93103260 T 19930302; CA 2090344 A 19930225; CZ 31093 A 19930302; DE 4207394 A 19920309; DE 59307136 T 19930302; EP 93103260 A 19930302; ES 93103260 T 19930302; FI 930924 A 19930302; HR P930196 A 19930217; HU 9300415 A 19930216; JP 4781793 A 19930309; NO 930318 A 19930129; SI 9300111 A 19930309; SK 17493 A 19930309; ZA 931587 A 19930305